

**Special 510(k) Summary of Safety and Effectiveness:  
Line Extension to Stryker Spine TRIO® Spinal Fixation System**

**Submission Information**

Name and Address of the Sponsor of the 510(k) Submission: Stryker Spine  
2 Pearl Court  
Allendale, NJ 07401

**NOV 16 2005**

Contact Person: Simona Voic  
Regulatory Affairs Project Manager  
Stryker Spine  
2 Pearl Court, Allendale, NJ 07401  
Tel: (201) 760 - 8145

Date of Summary Preparation: October 21, 2005

**Device Identification**

Proprietary Name: Stryker Spine TRIO® Spinal Fixation System

Common Name: Spinal Fixation Appliances

Classification Name and Reference: Spinal Interlaminar Fixation Orthosis,  
21 CFR §888.3050  
Pedicule Screw Spinal System  
21 CFR §888.3070

Device Product Code: 87 KWP: Appliance, Fixation, Spinal Interlaminar  
87 MNH: Spondylolisthesis Spinal Fixation System  
87 MNI: Orthosis, Spinal, Pedicle Fixation

**Predicate Device Information:**

K032855 – Stryker Spine MAPS System  
K951725 – Osteonics Spinal System  
K013823 – Xia Spinal System  
K012870 – Xia Stainless Steel System

**Predicate Device Identification**

The Stryker Spine MAPS System is comprised of screws, rods, and connectors. The components are available in a variety of lengths in order to accommodate patient anatomy. The implants are provided non-sterile and are fabricated from titanium alloy.

**Description of Device Modification**

This submission is intended to address a line extension to Stryker Spine MAPS System and the system name change. The line extension includes the addition of a new offset connector. The name of the MAPS System is changed to TRIO® Spinal Fixation System.

**Intended Use:**

The Stryker Spine TRIO® Spinal Fixation System is a pedicle screw system intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of the thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudarthrosis).

The Stryker Spine TRIO® Spinal Fixation System is also indicated for pedicle screw fixation for the treatment of severe spondylolisthesis (Grades 3 and 4) at the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine (L3 to sacrum) with removal of the implants after the development of a solid fusion mass.

The Stryker Spine TRIO® Spinal Fixation System is also a sacral/iliac screw fixation system indicated for degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma (fracture and/or dislocation), spinal stenosis, deformities (scoliosis, kyphosis and/or lordosis), tumor, pseudoarthrosis and revision of failed fusion attempts.

The Stryker Spine TRIO® Spinal Fixation System is also intended to be used in conjunction with the

OSS/Diapason Rods, Opus Spinal System Rods and the Multi-Axis Cross Connectors.

**Statement of Technological Comparison:**

The subject connector shares the same intended use, material, and basic design concepts as that of the predicate device: Stryker Spine MAPS System (K032855). Mechanical testing also demonstrated comparable mechanical properties to the predicate device: Xia Spinal System (K013823), Xia Stainless Steel System (K012870) and Osteonics Spinal System (K951725).



NOV 16 2005

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Simona Voic  
RA Project Manager  
Stryker Spine  
2 Pearl Court  
Allendale, New Jersey 07401

Re: K052971  
Trade/Device Name: Stryker Spine TRIO® Fixation System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle Screw System  
Regulatory Class: II  
Product Code: MNI, MNH, KWP  
Dated: October 21, 2005  
Received: October 24, 2005

Dear Ms. Voic:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

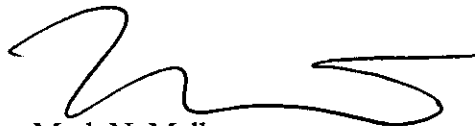
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

  
for Mark N. Melkerson

Acting Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

1-41

## Indications for Use

510(k) Number (if known): K052971

Device Name: Stryker Spine TRIO® Spinal Fixation System

### Indications For Use:

The Stryker Spine TRIO® Spinal Fixation System is a pedicle screw system intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of the thoracic, lumbar, and sacral spine: degenerative spondylolisthesis with objective evidence of neurologic impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion (pseudarthrosis).

The Stryker Spine TRIO® Spinal Fixation System is also indicated for pedicle screw fixation for the treatment of severe spondylolisthesis (Grades 3 and 4) at the L5-S1 vertebra in skeletally mature patients receiving fusion by autogenous bone graft having implants attached to the lumbar and sacral spine (L3 to sacrum) with removal of the implants after the development of a solid fusion mass.

The Stryker Spine TRIO® Spinal Fixation System is also a sacral/iliac screw fixation system indicated for degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma (fracture and/or dislocation), spinal stenosis, deformities (scoliosis, kyphosis and/or lordosis), tumor, pseudoarthrosis and revision of failed fusion attempts.


The Stryker Spine TRIO® Spinal Fixation System is also intended to be used in conjunction with the OSS/Diapason Rods, Opus Spinal System Rods and the Multi-Axis Cross Connectors.

Prescription Use   X   AND/OR  
(Part 21 CFR 801 Subpart D)

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)  
Division of General, Restorative,  
and Neurological Devices

Page 1 of 1

510(k) Number K052971